

Ship July 14

Dart Aerospace Ltd.

Date: Thursday, 6/29/2006 3:51:18 PM  
User: Kim Johnston

Process Sheet

split 06/07/01

|                       |                                       |                  |                       |
|-----------------------|---------------------------------------|------------------|-----------------------|
| Customer              | : CU-DAR001 Dart Helicopters Services | Drawing Name     | : STRUT WELDMENT ASSY |
| Job Number            | : 27783                               |                  |                       |
| Estimate Number       | : 10675                               |                  |                       |
| P.O. Number           | : N/A                                 | Part Number      | : D3443041            |
| This Issue            | : 6/29/2006                           | S.O. No.         | : N/A                 |
| Prsht Rev.            | : NC                                  | Drawing Number   | : D3443 REV. B        |
| First Issue           | : N/A                                 | Project Number   | : N/A                 |
| Previous Run          | : 27512                               | Drawing Revision | : B                   |
|                       |                                       | Type             | : LARGE FAB ASSY      |
|                       |                                       | Material         | : N/A                 |
| Written By            | : <u>SPC COMMENT BELOW</u>            | Due Date         | : 7/12/2006           |
| Checked & Approved By | : <u>06 06 29</u>                     | Qty:             | 5 Um: Each            |
| Comment               | : EST REV. A 05.11.17 NEW ISSUE EC    |                  |                       |

Additional Product

Job Number:



| Seq. #:   | Machine Or Operation: | Description :          |
|---|-----------------------|------------------------|
| 1.0   | D34431                | Lug                    |
| <div>Comment: Qty.: 1.0000 Each(s)/Unit Total : 5.0000 Each(s)<br/>Pick:<br/>Qty Part Number Description Batch<br/>1 D3443-1 lug B27529 → 2<br/>B27794 → 3 PD 06-07-19 (5)</div>  |                       |                        |
| 2.0   | D34435                | Tubing                 |
| <div>Comment: Qty.: 1.0000 Each(s)/Unit Total : 5.0000 Each(s)<br/>Pick:<br/>Qty Part Number Description Batch<br/>1 D3443-5 Tubing B27531<br/>B27796 → 4 PD 06-07-19 (5)</div>   |                       |                        |
| 3.0   | D34531                | Clevis                 |
| <div>Comment: Qty.: 1.0000 Each(s)/Unit Total : 5.0000 Each(s)<br/>Pick:<br/>Qty Part Number Description Batch<br/>1 D3453-1 Clevis B27701 → 1 PD 06-07-19 (5)</div>              |                       |                        |
| 4.0   | 238805                | SS DOWEL PIN 3/4" LONG |
| <div>Comment: Qty.: 2.0000 Each(s)/Unit Total : 10.0000 Each(s)<br/>Pick:<br/>Qty Part Number Description Batch<br/>2 238-805 SS DOWEL PIN 3/4" LONG M14030 PD 06-07-19 (5)</div> |                       |                        |

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                 |                          |
|------|------|--------------------|----|------|-----|---------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Mfg / Design<br>Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                 |                          |
|      |      |                    |    |      |     |                                 |                          |

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                  |                |                           |                        |                          |
|------|------|----------------------------------|-----------------------------|----------------------------------|----------------|---------------------------|------------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                  |                | Verification<br>Section C | Approval<br>Design Mgr | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Design Mgr       | Action Description<br>Design Mgr | Sign &<br>Date |                           |                        |                          |
|      |      |                                  |                             |                                  |                |                           |                        |                          |
|      |      |                                  |                             |                                  |                |                           |                        |                          |
|      |      |                                  |                             |                                  |                |                           |                        |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

NOTE: Date & initial all entries

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_



Date: Thursday, 6/29/2006 3:51:19 PM  
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## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: STRUT WELDMENT ASSY

Job Number: 27783

Part Number: D3443041

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1  
Weld assembly as per dwg D3443

PD 06-07-19 (5)

6.0

QC5/9

WELD INSPECTION



Comment: WELD INSPECTION

AM 06/07/20 (5)

7.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING  
1-Mask holes as per dwg D3443

2-Powder Coat White Gloss (Ref: 4.3.5.2) as per QSI 005 4.3

a.m 06/07/21 (5)

8.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

SB 06/07/21 (5)

9.0

63215K32

Spherical Bearing



Comment: Qty.: 1.0000 Each(s)/Unit Total: 5.0000 Each(s)

Pick:

Qty Part Number  
1 63215K32

Description  
Spherical Bearing

Batch

M 101481

SB 06/08/18 4  
SB 06/07/21

10.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

Assemble bearing and ball plungers as per dwg D3443 ensure bearing rotates smoothly

SB 06/07/15 4

11.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

06-08-15 (4)

12.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location:

GA Took 3  
ST 436

SB 06/08/15 (3)  
AB 06/08/16 (7)

| W/O: |      | WORK ORDER CHANGES |    |      |     |                                 |                          |
|------|------|--------------------|----|------|-----|---------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Mfg / Design<br>Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                 |                          |
|      |      |                    |    |      |     |                                 |                          |

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                  |                |                           |                        |                          |
|------|------|----------------------------------|-----------------------------|----------------------------------|----------------|---------------------------|------------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                  |                | Verification<br>Section C | Approval<br>Design Mgr | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Design Mgr       | Action Description<br>Design Mgr | Sign &<br>Date |                           |                        |                          |
|      |      |                                  |                             |                                  |                |                           |                        |                          |
|      |      |                                  |                             |                                  |                |                           |                        |                          |
|      |      |                                  |                             |                                  |                |                           |                        |                          |

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☒ No ☐ DQA: ☒ ☐ Date: 06/08/17

NOTE: Date & initial all entries

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Date: Thursday, 6/29/2006 3:51:19 PM  
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## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: STRUT WELDMENT ASSY

Job Number: 27783

Part Number: D3443041

Job Number:



Seq. #:

Machine Or Operation:

Description :

13.0

DC

DOCUMENT CONTROL



(4)

Comment: DOCUMENT CONTROL  
Inspection Level 21

DP 06/08/17

Job Completion



U 06/08/17



| W/O: |      | WORK ORDER CHANGES |    |      |     |                                 |                          |
|------|------|--------------------|----|------|-----|---------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE   | By | Date | Qty | Approval<br>Mfg / Design<br>Mgr | Approval<br>QC Inspector |
|      |      |                    |    |      |     |                                 |                          |
|      |      |                    |    |      |     |                                 |                          |

| NCR: |      | WORK ORDER NON-CONFORMANCE (NCR) |                             |                                  |                |                           |                        |                          |
|------|------|----------------------------------|-----------------------------|----------------------------------|----------------|---------------------------|------------------------|--------------------------|
| DATE | STEP | Description of NC<br>Section A   | Corrective Action Section B |                                  |                | Verification<br>Section C | Approval<br>Design Mgr | Approval<br>QC Inspector |
|      |      |                                  | Initial<br>Design Mgr       | Action Description<br>Design Mgr | Sign &<br>Date |                           |                        |                          |
|      |      |                                  |                             |                                  |                |                           |                        |                          |
|      |      |                                  |                             |                                  |                |                           |                        |                          |
|      |      |                                  |                             |                                  |                |                           |                        |                          |

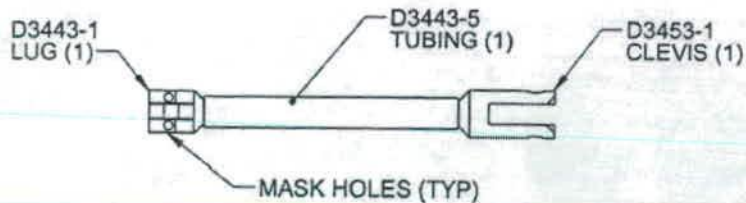
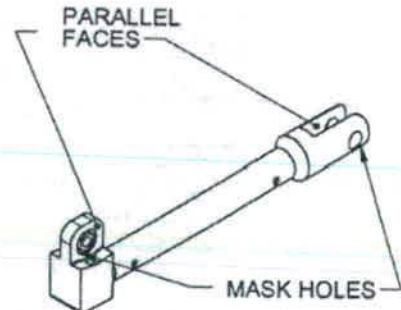
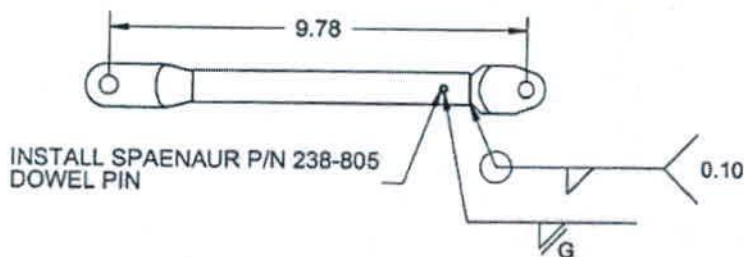
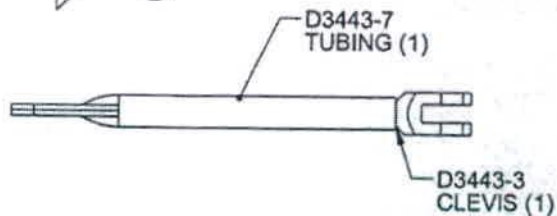
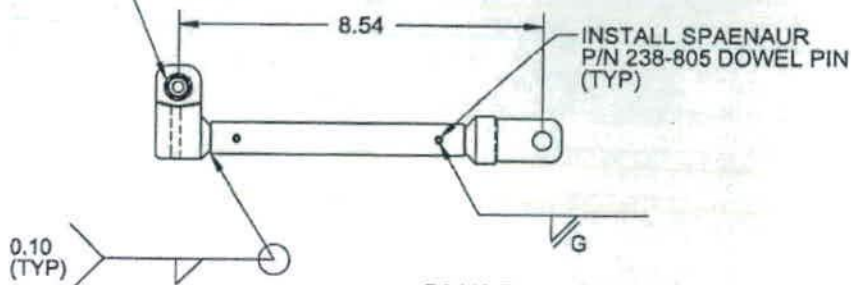
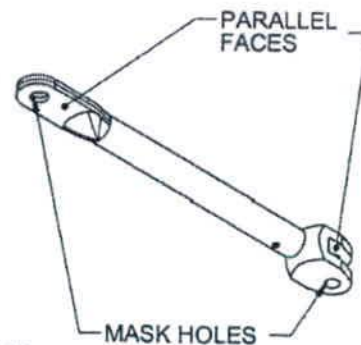
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

NOTE: Date & initial all entries

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

**DART**

|                         |                   |   |                        |
|-------------------------|-------------------|---|------------------------|
| DESIGN<br>RF            | DRAWN BY<br>RF    | <b>DART AEROSPACE LTD</b><br>HAWKESBURY, ONTARIO, CANADA                        |                        |
| CHECKED <i>H</i>        | APPROVED <i>H</i> | DRAWING NO.<br><b>D3443</b>   | REV. B<br>SHEET 1 OF 3 |
| DATE<br><b>05.12.05</b> |                   | TITLE<br><b>STRUT WELDMENT ASSEMBLY</b>   | SCALE<br><b>1:4</b>    |
| A                       | 05.09.02          | NEW ISSUE   |                        |
| B                       | 05.12.05          | ADDED -9 PIN; REMOVED BALL PLUNGER;<br>REVISE TOLERANCE; & $\phi 0.125$ WAS #30 |                        |

**RELEASED**05.12.09 *H*PRESS FIT McMASTER-CARR P/N 63215K32  
BALL JOINT BEARING AFTER POWDER COAT**D3443-041****D3443-043**SHOP COPY  
RETURN TO  
ENGINEERINGUNCONTROLLED COPY  
SUBJECT TO AMENDMENTWITHOUT NOTICE  
WORK ORDERNO. **27783****NOTES:**

- 1) WELD PER DART QSI 004
- 2) FINISH: POWDER COAT WHITE (4.3.5.2) PER DART QSI 005 4.3
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) IDENTIFY WITH DART P/N USING FINE POINT PERMANENT INK MARKER

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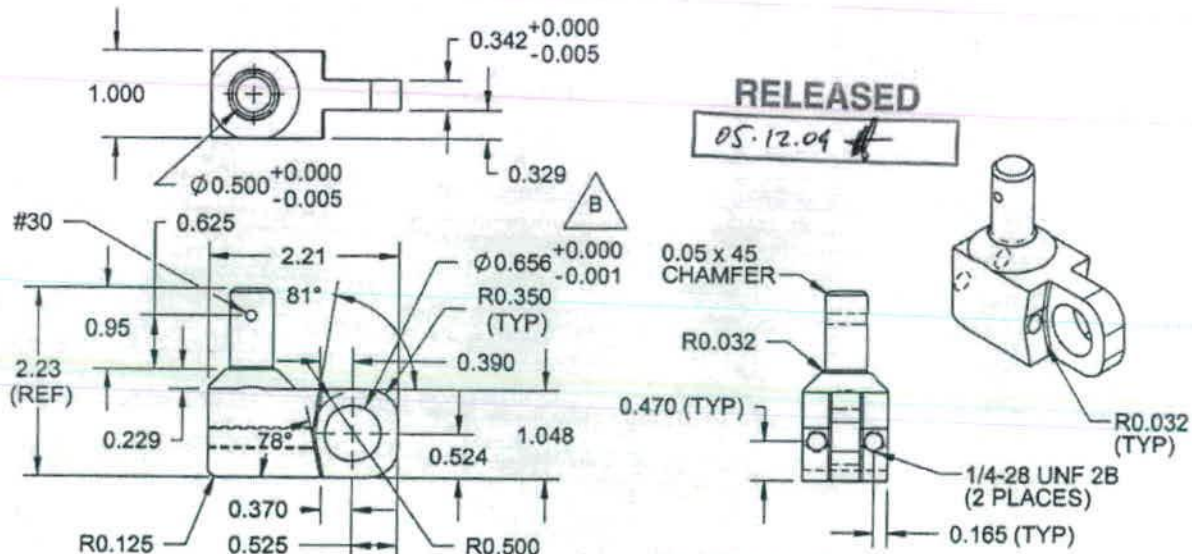
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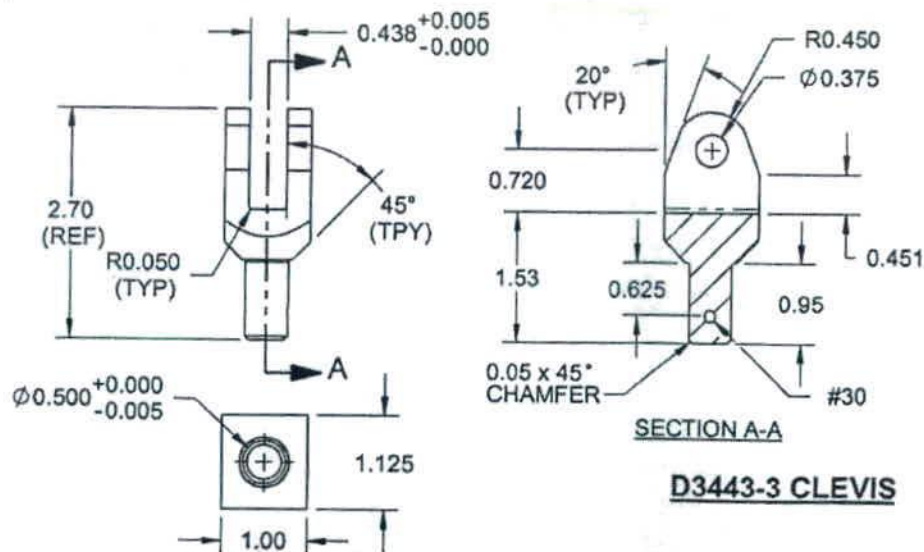


**DART**

|                         |  |  |                        |
|-------------------------|--|--|------------------------|
| DESIGN<br>RF            | DRAWN BY<br>RF                             | <b>DART AEROSPACE LTD</b><br>HAWKESBURY, ONTARIO, CANADA |                        |
| CHECKED<br>#            | APPROVED<br>#                              | DRAWING NO.<br><b>D3443</b>                              | REV. B<br>SHEET 2 OF 3 |
| DATE<br><b>05.12.05</b> | TITLE<br><b>STRUT WELDMENT ASSEMBLY 12</b> |  |                        |

**D3443-1 NOTES:**

- 1) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC M17-4B)

**D3443-3 CLEVIS****D3443-3 NOTES:**

- 1) MATERIAL: AISI 304 SS ROUND BAR (REF. DART SPEC M304R)

**GENERAL NOTES:**

- 2) FINISH: NONE  
3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED  
4) ALL DIMENSIONS ARE IN INCHES  
5) BREAK ALL UNMARKED SHARP EDGES 0.005 TO 0.010

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NO. 27783

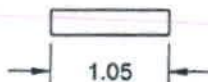
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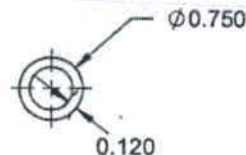
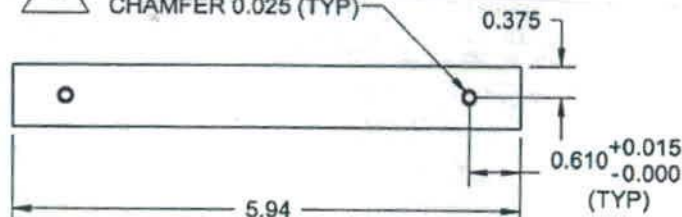
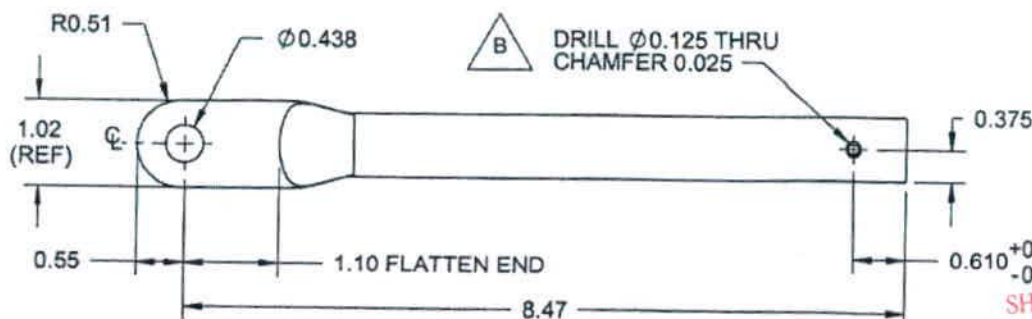
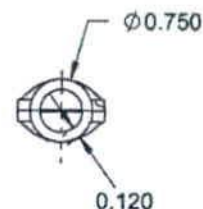
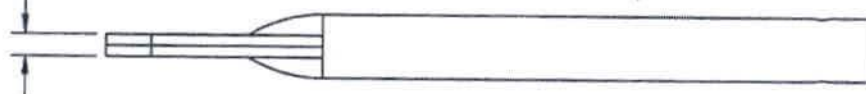
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|------------------|----------------|---|------------------------|
| DESIGN<br>RF     | DRAWN BY<br>RF | DART AEROSPACE LTD<br>HAWKESBURY, ONTARIO, CANADA |                        |
| CHECKED<br>#     | APPROVED<br>#  | DRAWING NO.<br>D3443                              | REV. B<br>SHEET 3 OF 3 |
| DATE<br>05.12.05 |                | TITLE<br>STRUT WELDMENT ASSEMBLY                  | SCALE<br>1:2           |

 $\phi 0.210^{+0.005}_{-0.010}$ **D3443-9 PIN****D3443-9 NOTES:**

- 1) MATERIAL: DELRIN II 150R OR ACETRON GP ACETAIL (REF. DART SPEC M-DELRIN-R)
- 2) FINISH: NONE
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES

**RELEASED**

05.12.05

DRILL  $\phi 0.125$  THRU  
CHAMFER 0.025 (TYP)**D3443-5 TUBING** $0.260^{+0.000}_{-0.030}$ DRILL  $\phi 0.125$  THRU  
CHAMFER 0.025**D3443-7 TUBING****D3443-5/-7 NOTES:**

- 1) MATERIAL: AISI 316/304 SS SEAMLESS TUBING (REF. DART SPEC M304TR0.7500W.120)
- 2) FINISH: NONE
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL UNMARKED SHARP EDGES 0.005 TO 0.025

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